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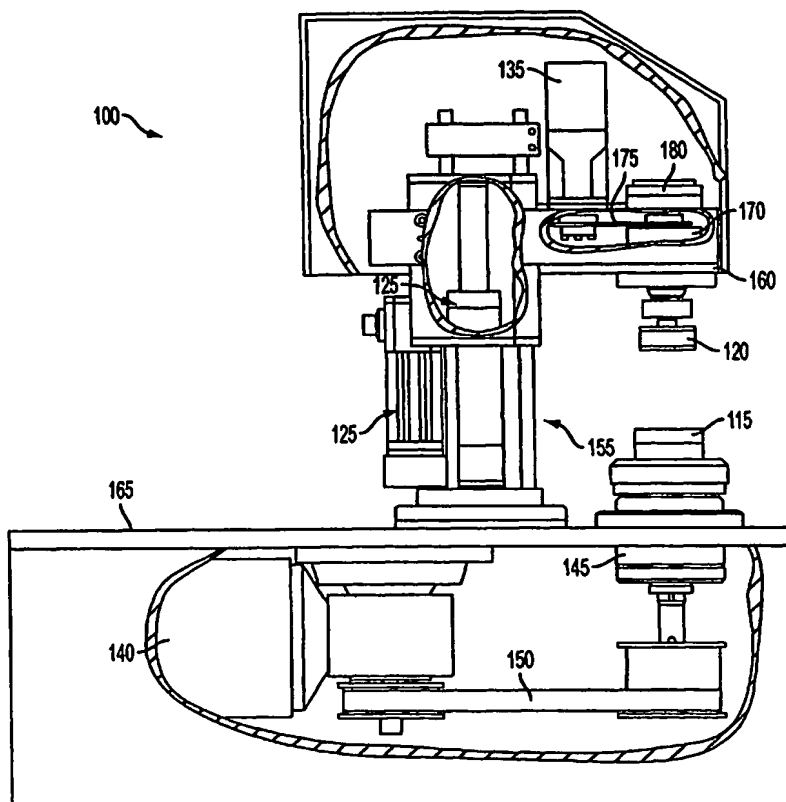
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[Continued on next page]

(54) Title: APPARATUS FOR MEASURING THE CRUSHING STRENGTH OF MICRON SUPERABRASIVES



(57) Abstract: A method and apparatus are provided for measuring the crushing strength of an abrasive, comprising particles, used in a lapping process. Embodiments include a crushing strength tester having a cup for holding the abrasive; a first motor for rotating the cup in a first direction; a piston having a face for rotatably fitting within the cup and contacting the abrasive; a second motor for rotating the piston in a second direction opposite the first direction; and a press for pressing the piston against the abrasive and crushing the particles while the first and second motors are rotating. An initial particle size distribution for the particles is determined, then the abrasive is subjected to a crushing force approximately equal to that of the lapping process using the crushing strength tester. A post-crushing particle size distribution for the particles is determined, and the initial and post-crushing particle size distributions are compared.

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